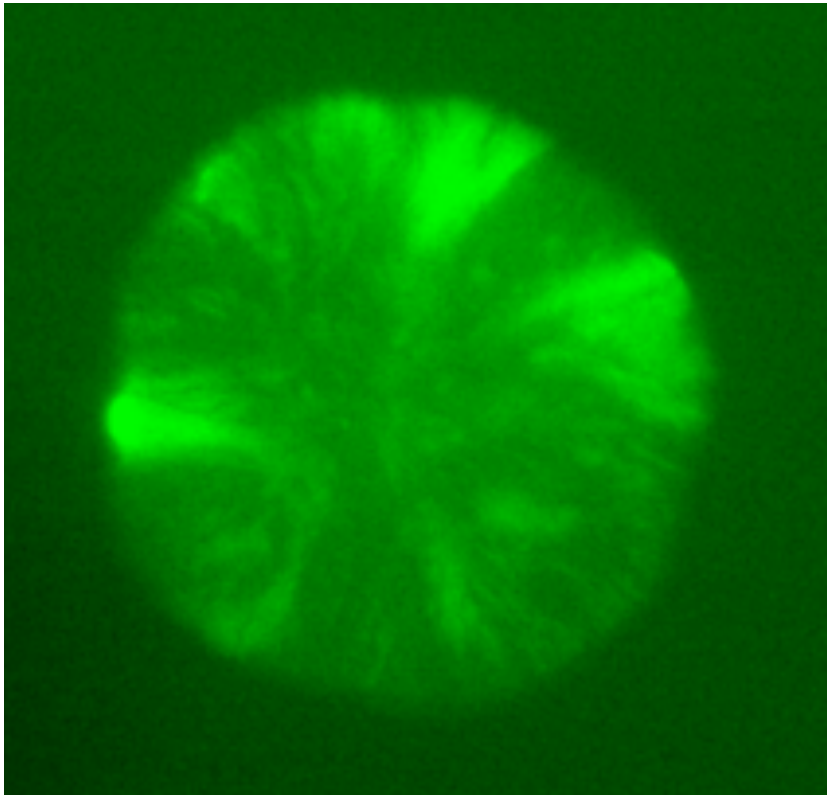


Switcher colony structure

Orso Maria Romano

Diana Fusco

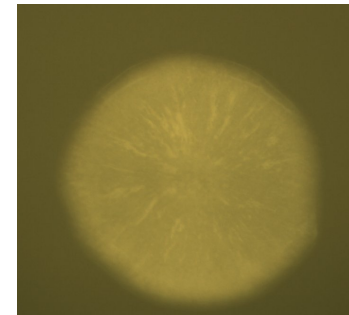
Switch at individual level → different colony morphology



- Environment effect: T and [ura] change switching and growth rates
- Modeling: how to relate rates and colony morphology?

Initial observations

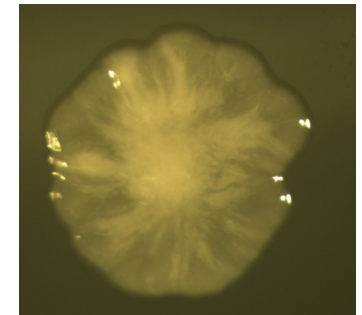
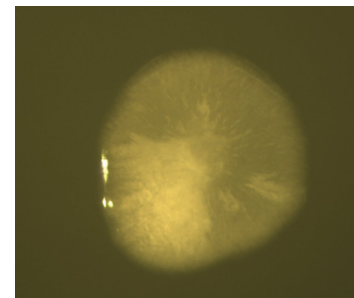
Strain	Dilution	[uracil]	CFU at 25° C	CFU at 30° C
SBW25	-7	0	90	78
SBW25	-7	0,4	87	96
SBW25	-7	0,8	86	70
SBW25	-7	1,6	90	83
1w4xGFP	-6	0	18	118
1w4xGFP	-6	0,4	40	1
1w4xGFP	-6	0,8	110	1
1w4xGFP	-6	1,6	90	4
Re1.4xGFP	-6	0	28	28
Re1.4xGFP	-6	0,4	22	54
Re1.4xGFP	-6	0,8	62	26
Re1.4xGFP	-6	1,6	15	1



1W4



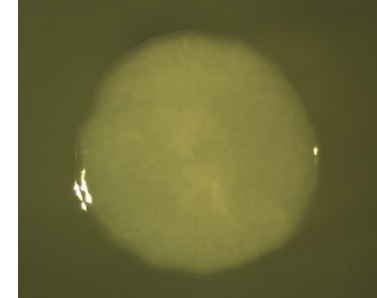
less [ura]



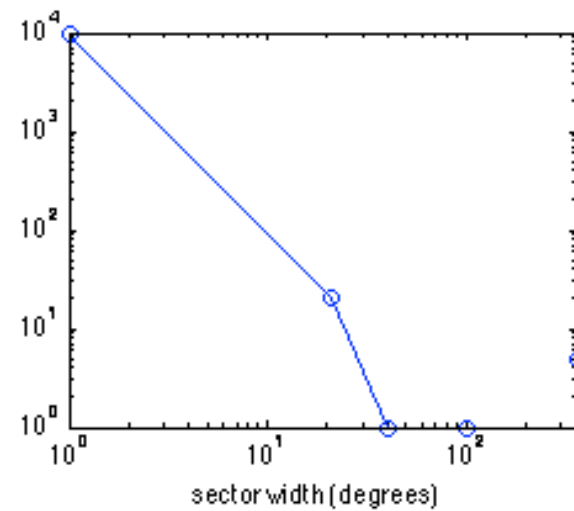
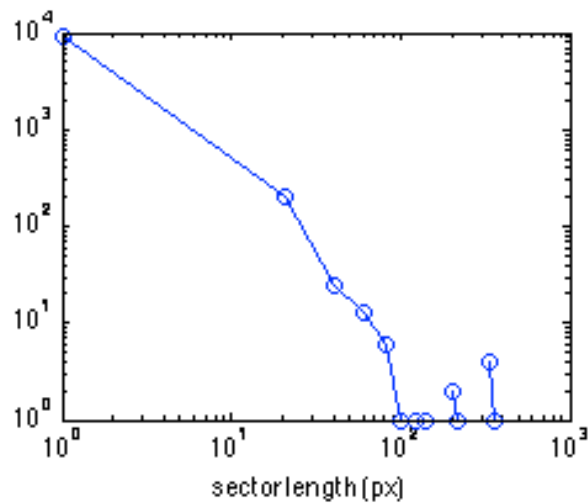
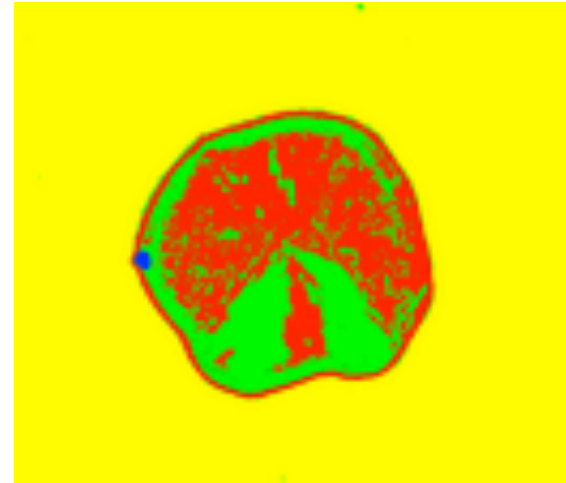
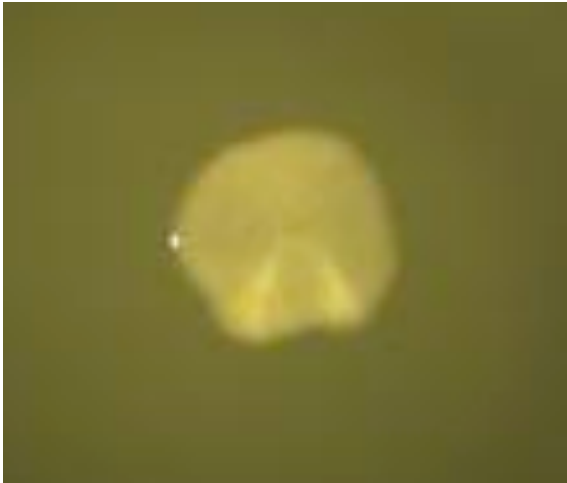
RE 1.4



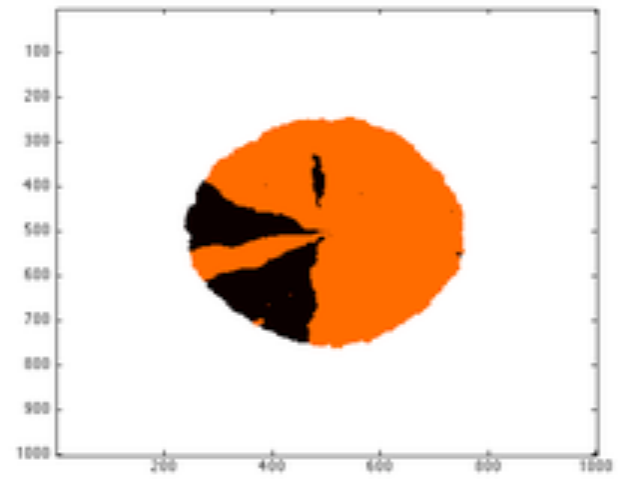
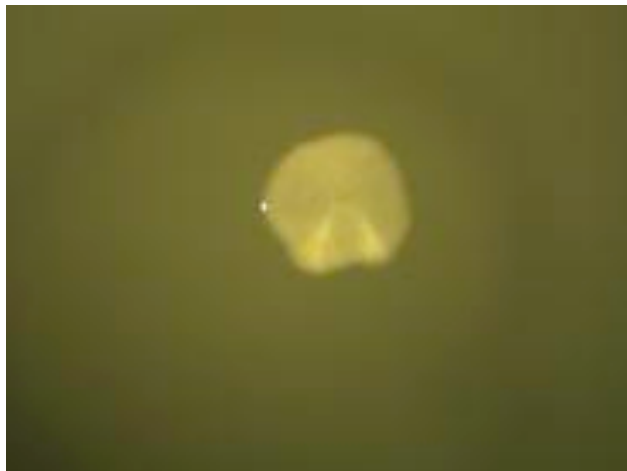
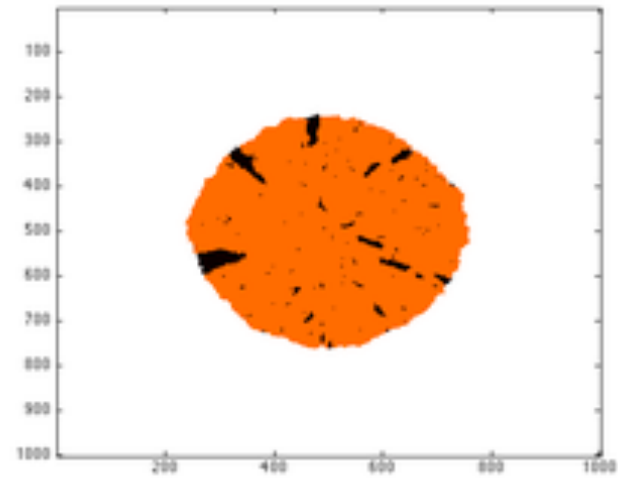
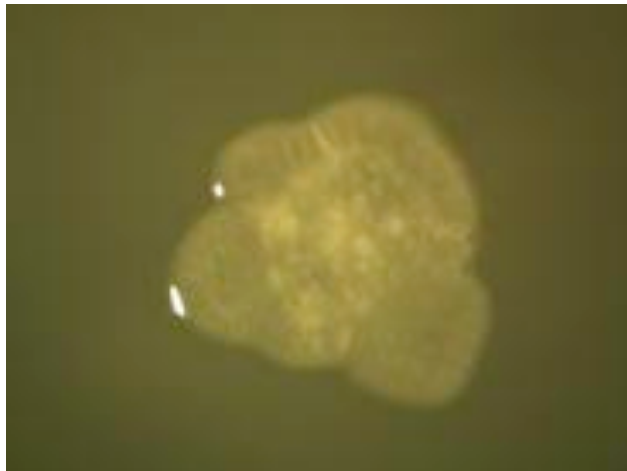
higher T



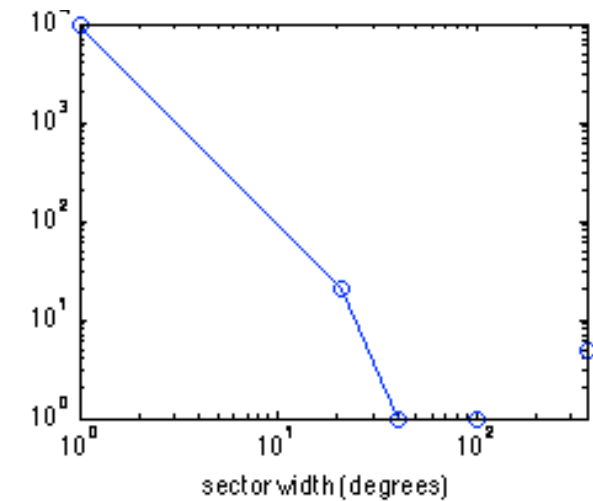
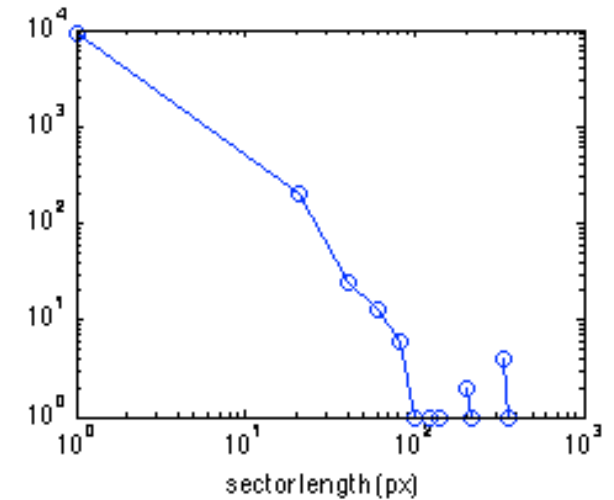
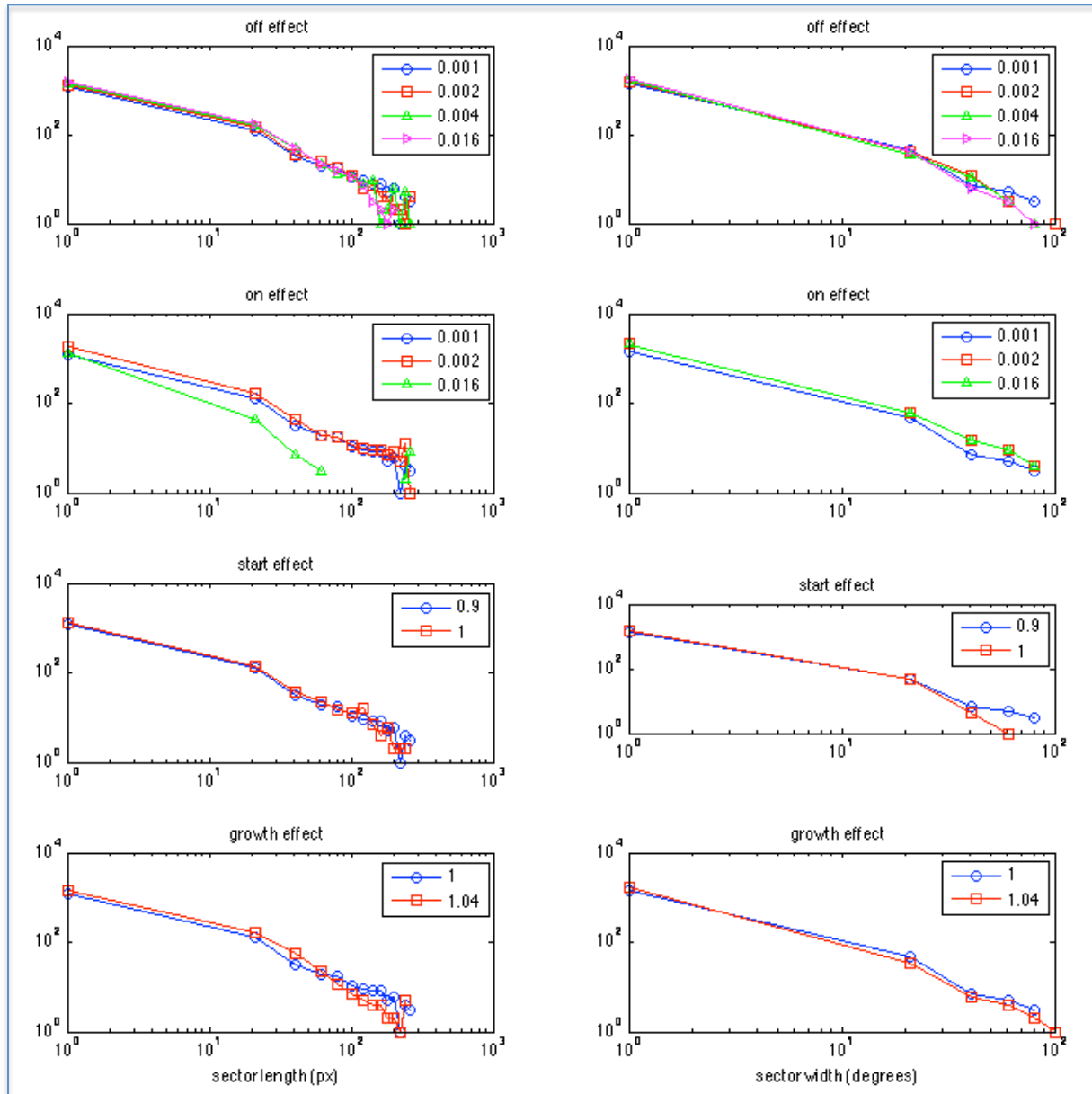
How to characterize sectors



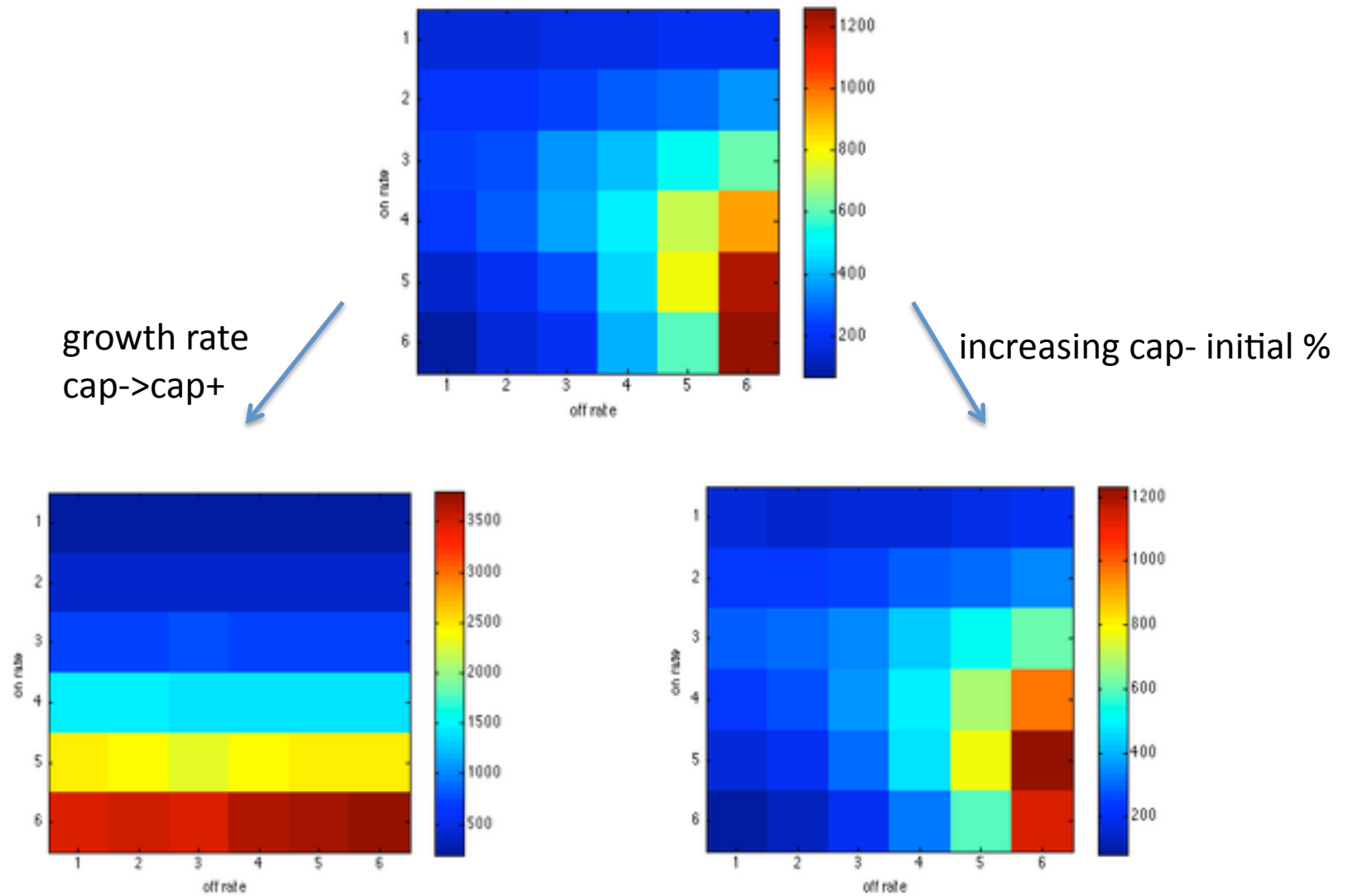
Spatial model for colonies



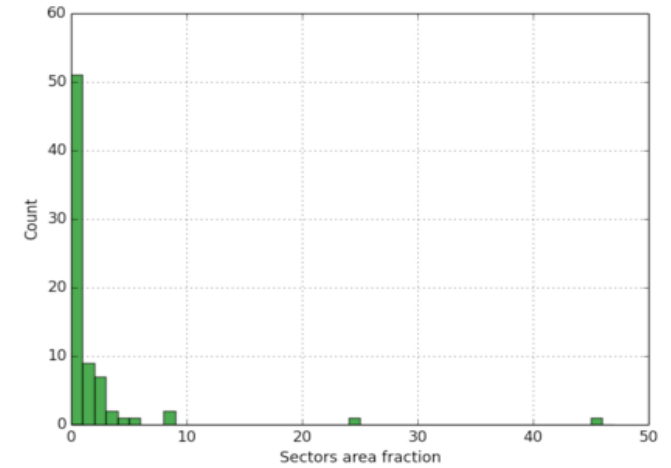
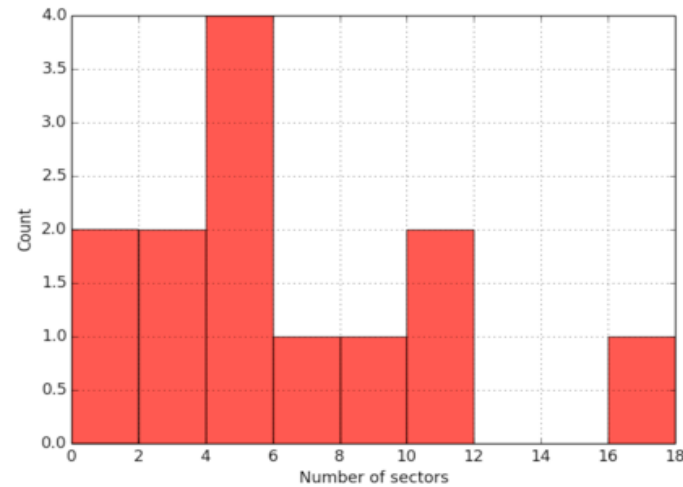
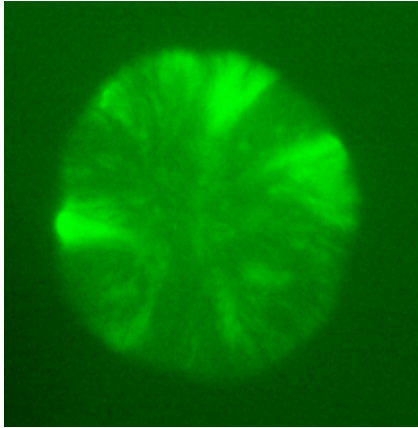
Spatial model for colonies: sector length and width



Spatial model for colonies: number of sectors



Next steps: better pictures and model exploration



- comparison with non-spatial (tree) models
- frequency/density/time-dependence
- switch at division vs switch at any time